

REMARKS

Claims 1-9 are pending in the application. It is respectfully submitted that this Amendment is fully responsive to the Office Action dated September 3, 2009.

As To The Merits:

As to the merits of the case, the Examiner reiterates the rejection of claims 1-9 under 35 U.S.C. §103 as being unpatentable over Suehiro et al (of record). This rejection is respectfully traversed.

Independent claim 1 call for producing a plurality of finite-length signals of a length Nm

$$S_{A,X}=(x_0A, 0\dots 0, x_1A, 0\dots 0, x_2A, 0\dots 0, \dots, x_{m-1}A, 0\dots 0)$$

$$S_{B,Y}=(y_0B, 0\dots 0, y_1B, 0\dots 0, y_2B, 0\dots 0, \dots, y_{m-1}B, 0\dots 0)\dots$$

(0...0 indicates a null time of a predetermined length where no signal is generated)

using a plurality of data sequences

$$A=(a_0a_1\dots a_{N-1}), B=(b_0b_1\dots b_{N-1}), \dots \text{ and}$$

a plurality of coefficient sequences

$$X=(x_0x_1\dots x_{m-1}), Y=(y_0y_1\dots y_{m-1}), \dots;$$

With regard to these features of claim 1, the Examiner attempts to establish that Suehiro discloses these features of claim 1 by relying on the set of periodic sequences A, B, C, D in equation (1) of section 3, and the plurality of coefficients X and Y discussed in section 2, of the Suehiro reference.

However, while Suehiro may disclose the plurality of coefficients X and Y in section 2 and the set of periodic sequences A, B, C, D in equation (1) of section 3, it is respectfully submitted that the Examiner has failed to establish that Suehiro teaches that the plurality of coefficients X and Y in section 2 and the set of periodic sequences A-D in equation (1) of section 3, produce a plurality of finite-length signals of the length Nm,

$$S_{A,X}=(x_0A, 0\dots 0, x_1A, 0\dots 0, x_2A, 0\dots 0, \dots, x_{m-1}A, 0\dots 0)$$

$$S_{B,Y}=(y_0B, 0\dots 0, y_1B, 0\dots 0, y_2B, 0\dots 0, \dots, y_{m-1}B, 0\dots 0)$$

That is, the Examiner has failed to establish that Suehiro uses the plurality of coefficients X and Y in section 2 in conjunction with the set of periodic sequences A-D of section 3 to produce a plurality of finite-length signals of the length Nm, as required in claim 1.

In addition, the Examiner also fails to establish that the plurality of finite length signals of a length Nm includes a null time of a predetermined length (0 ... 0) where no signal is generated.

That is, it is respectfully submitted that on page 6, lines 4-14, the Examiner acknowledges that Suehiro fails to teach these features of claim 1. More specifically, the Examiner acknowledges on page 6 that Suehiro fails to disclose pretty much of all of the features set forth in claim 1. Accordingly, it is clear that the Suehiro reference clearly fails to disclose each and every feature of the features set forth in claim 1, in view of the Examiner's admission that

Suehiro fails to explicitly teach basically all of the features of claim 1 in page 6, lines 4-14 of the outstanding Action.

In any event, the Examiner attempts to establish that “the reference of Suehiro does suggest producing a plurality of finite-length signals of a length N_m ”, and directs Applicants’ attention to equations 1 and 7 of the Suehiro reference in line 19, page 6, of the Action.

However, it is respectfully submitted that the Examiner has failed to appreciate neither equation (7), which shows the transmitter signal including the data signal (b_0, b_1, b_2, b_3) being carried by the chip-shifted signals $(B', j, 0, 0, 0)$, $(0, B', j, 0, 0)$, $(0, 0, B', j, 0)$ and $(0, 0, 0, B', j)$, nor equation (1) of Suehiro teach a plurality of finite length signals of a length N_m that include a plurality of coefficient sequences $X=(x_0x_1\dots x_{m-1})$, $Y=(y_0y_1\dots y_{m-1})$, ...; as well as a null time of a predetermined length $(0 \dots 0)$ where no signal is generated, as required by claim 1.

The Examiner further argues at the bottom of page 6 of the outstanding Action “that equation 7 teaches that the data is carried by the chip-shifted signals with 0 data of predetermined length in between each of the signals.” However, the chip-shifted signals $(B', j, 0, 0, 0)$, $(0, B', j, 0, 0)$, $(0, 0, B', j, 0)$ and $(0, 0, 0, B', j)$ fail to constitute a plurality of finite-length signals of the length N_m as required by claim 1, and that the 0 included the chip-shifted signals are not predetermined as the Examiner asserts.

Further, on page 7 of the outstanding Action, the Examiner appears to take the position that equation 7 is repeated in order to produce a pseudo periodic signal. However, it is respectfully submitted that the Examiner's appreciation of the reference is misplaced, since in sections 4 and 4.1 it is clearly shown that the pseudo periodic signals are $(A', 1)$ and (B', j) wherein the pseudo periodic signal (B', j) is used as part of the chip-shifted signal in equation 7. Therefore, it is respectfully submitted it is impossible for equation 7 to be repeated to produce a pseudo periodic signal, since the chip-shifted signal already includes the pseudo periodic signal (B', j) .

In view of the above, it is respectfully submitted that the Examiner has failed to establish that the Suehiro reference teaches any of the features set forth in independent claim 1. Moreover, it is respectfully submitted that the arguments against claim 1 also apply to claim 9. Further, the Examiner's reliance on the secondary reference of Taub is still lacking, since Taub fails to cure the above-noted drawbacks and deficiencies of Suehiro.

In view of the above remarks, Applicants submit that the claims are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

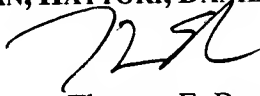
Application No. 10/525,737
Art Unit: 2611

Response under 37 C.F.R. §1.116
Attorney Docket No. 052159

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



Thomas E. Brown
Attorney for Applicants
Registration No. 44,450
Telephone: (202) 822-1100
Facsimile: (202) 822-1111

TEB/nrp